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| EXAMINER |
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WYSZOMIERSKI, GEORGE P

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| ART UNIT | PAPER NUMBER |
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1793

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12/28/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/523,465

Applicant(s)

PEKER ET AL.

Examiner

George P. Wyszomierski

Art Unit

1793

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-36 is/are pending in the application.
- 4a) Of the above claim(s) 21-36 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 5/30/06.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- ☐ Notice of Informal Patent Application
- ☐ Other: ____.

1. Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted:

- i) Group I, claims 1-20, drawn to a dental prosthesis.
 - ii) Group II, claims 21-36, drawn to a method of heating, shaping and quenching.
2. The inventions listed as Groups I and II do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons:
The Special Technical Feature common to the two groups in this application involves a dental prosthesis made of a bulk solidifying amorphous alloy with an elastic strain limit around 1.2% or more. Such a feature is not novel, as evidenced by Horton et al. (PG Pub. No. 2002/0162605), especially paragraph [0031] and Table 1 therein.
3. During a telephone conversation with John Peck, attorney of record, on December 18, 2007 a provisional election was made without traverse to prosecute the invention of Group I, claims 1-20. Affirmation of this election must be made by applicant in replying to this Office action. Claims 21-36 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.
4. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim

remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Information Disclosure Statement

5. The Examiner acknowledges receipt of the lengthy information disclosure statement filed **May 30, 2006**, citing **137** references. While there is no requirement that applicants explain the materiality of English language references, the cloaking of a clearly relevant reference in a long list of references may not comply with applicants' duty to disclose; see Penn Yan Boats, Inc. v. Sea Lark Boats, Inc., 359 F. Supp. 948, aff'd 479 F. 2d. 1338. There is no duty for the Examiner to consider these references to a greater extent than those ordinarily looked at during a regular search by the Examiner. Accordingly, the Examiner has considered these references in the same manner as references encountered during a normal search of Office search files.

6. Claims 1-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

a) The scope of the term "around" in claims 1, 4, and 6 is uncertain, i.e. how much tolerance from the stated value is permitted in order to remain within the scope of the claims.

b) In claim 16, the metes and bounds of a "conventional dental material" cannot be determined.

c) Claims dependent upon any of the above are likewise rejected under this statute.

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

8. Claims 1-8, 14 and 15 are rejected under 35 U.S.C. 102(e) as being anticipated by Horton et al. (PG Pub.No. 2002/0162605).

Horton discloses dental implants made of a bulk-solidifying amorphous alloy and discloses an example of such an alloy having a composition and properties within the limits as recited in the instant claims. See paragraphs [0031] and [0032] and Table 1 of Horton. With respect to claim 14, note paragraph [0044] of Horton. Thus, Horton et al. is held to fully meet the limitations of the instant claims.

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 10, 11 and 16-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Horton et al.

Horton, discussed supra, does not specify the hardness recited in claim 10 or the glass transition temperature recited in claim 11, and does not specify the various features recited in claims 16-20. However, with respect to the hardness and glass transition temperature, the examiner's position is that these are material properties of a given amorphous alloy composition, and Horton paragraph [0032] indicates that a large range of specific compositions may be used in the Horton procedure. One skilled in the art would vary the composition used by Horton within the constraints set forth in that reference, and some of the compositions are likely to possess the hardness and transition temperatures as presently claimed.

With regard to claim 16, the examiner's position is that one skilled in the art practicing the Horton disclosure would employ at least in part some "conventional dental material", whatever that material may be. See also the rejection under 35 USC 112, supra.

With regard to claims 17 and 18, one of skill in the dental arts would naturally want to employ a biocompatible coating on a dental prosthesis, at the very least for aesthetic purposes, i.e. to match the color of a prosthesis to that of a natural tooth to the maximum extent practical. With regard to claim 18, this claim recites nothing more than common fillers use in cement and therefore does not patentably distinguish the invention over the prior art.

With respect to claims 19 and 20, the examiner submits that the dental implants disclosed in paragraph [0010] of Horton will in many cases be of the dimensions as recited in claim 19, and that bridges and caps as recited in claim 20 are nothing more than very commonly used types of dental implants.

Thus, a prima facie case of obviousness is established between the disclosure of Horton et al. and the presently claimed invention.

11. Claims 9 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Horton et al., as above, in view of Lin et al. (U.S. Patent 5,735,975).

Paragraph [0046] of Horton indicates that various iron-containing materials are within the scope of the Horton disclosure. Also, paragraph [0032] of Horton refers specifically to the Lin patent, in which the Abstract thereof indicates that various iron-containing materials are within the scope of the Lin patent. Lin further indicates that Al is optional, i.e. it can be replaced by Zn. Thus, the combined disclosures of Horton et al. and Lin et al. would have taught the invention as claimed to one of ordinary skill in the art.

12. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Horton et al. in view of WIPO Publication 00/68469.

Horton does not disclose the precipitates as presently claimed. The WIPO '469 disclosure indicates that it was known in the art, at the time of the invention, to create ductile metallic crystalline phase precipitates in amorphous metal matrices. Particularly, WIPO '849 discloses such precipitates in Zr-base bulk metallic glass matrices, i.e. the same materials as discussed by Horton. Thus, the combination of Horton et al. and the WIPO '469 disclosure would have rendered the claimed invention obvious to one of ordinary skill in the art.

13. Claims 1-20 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-22 of copending Application No. 10/524954.

Although the conflicting claims are not identical, they are not patentably distinct from each other because both the instant claims and the '954 claims are directed to bulk solidifying

amorphous alloys having certain compositions and properties. Claims 7-12 and 14-19 of the '954 application are virtually identical to instant claims 2-5, 8, 9, 13-17 and 19 respectively (and '954 claim 11 would completely include the values recited in instant claim 7). Claim 13 of the '954 application is analogous to instant claim 12. Instant claim 6, 10 and 11 merely recite properties which would easily be achieved by one skilled in the art by varying the precise composition of the prior art materials within the constraints as recited in, e.g. '954 claims 2, 3 and 9. Instant claim 18 defines nothing more than conventional fillers that would be used in conjunction with the cement of '954 claim 18. While the '954 claims do not recite the term "dental prosthesis" as required by the instant claims or the "bridge or a cap" as recited in instant claim 20, the examiner's position is that such terminology falls within the scope of the "medical implant for placement into a specific implant region within a biological organism" recited in '954 claim 1. Thus, no patentable distinction is seen between the articles defined in the instant claims and those defined in the claims of the '954 application.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

14. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).


A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to George Wyszomierski whose telephone number is (571) 272-1252. The examiner can normally be reached on Monday thru Friday from 8:00 a.m. to 4:30 p.m. Eastern time.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King, can be reached on (571) 272-1244. All patent application related correspondence transmitted by facsimile must be directed to the central facsimile number, (571)-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


GEORGE WYSZOMIERSKI
PRIMARY EXAMINER
GROUP 1793

GPW
December 20, 2007